

### Abstract

Solving a Traveling Salesman Problem (TSP) by selecting a set of locations to visit, selecting a starting point and an ending point from the set of locations, applying a search method to the set of locations, and providing a route as a solution to the TSP, where the search method is a combinatoric approach to a genetic search and the search method simultaneously minimizes distance and time. The route starts and ends in different locations and completes in polynomial time, such as  $O(n + k)$ , where  $k$  is a constant. The solution to the TSP has many applications, including finding distribution chains to satisfy customer demand for an Internet enterprise.